Exhibit 8

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28 August, 2020

Regarding: Forest Management Direction for Large Diameter Trees in Eastern Oregon #58050

I am writing to provide my comments on the proposed changes to the Eastside 21-inch Wildlife Screens. I find it deeply concerning that the U.S. Forest Service is considering removing these critical protections for larger trees in forests east of the Cascades Range. I have several key concerns which I outline in detail in my comments below. In brief, these concerns are (1) Large trees are critical habitat for rare native wildlife; (2) Logging large trees releases significant and dangerous amounts of carbon into the atmosphere, worsening climate change; and (3) Logging may eliminate trees that are most adapted to survive drought and insect attacks in a warmer, drier climate, thus harming forest resilience. I strongly urge the Forest Service to retain the 21-inch diameter Wildlife Screens in eastern Oregon.

(1) Large Trees Are Critical For Wildlife

It is well-documented in the scientific literature that large trees play a critical role in the ecosystems in which they occur. In forests east of the Cascade Mountains of the western US, large trees provide vital habitat for rare wildlife species such as Pileated Woodpeckers and American martens, which select larger-sized trees to meet their life-history needs.

For example, in a study on the habitat preferences of American marten—a rare carnivore—in the La Grande Municipal Watershed in the Blue Mountains of northeastern Oregon, Bull et al. (2005) showed that 20 radio-tagged martens selected forest stands with higher densities of snags >51 cm dbh (= 20 inches) and trees >25 cm dbh (~10 inches). In addition, stands with >50% canopy closure were used more, and stands without any timber harvesting were used more. Stands of Grand Fir were used slightly less than available on the landscape but nevertheless there were many marten locations in Grand Fir stands (see Figure 1A of Bull et al. 2005).

Pileated Woodpecker is another species of concern. On the Starkey Experimental Forest in northeastern Oregon, 25% of pileated woodpeckers nested in live Grand Fir trees (Bull 1987). The dbh of 105 nest trees averaged 84 cm (=33 inches), and at 67% of the nest sites the surrounding stand was Grand Fir forest types. Bull and Holthausen (1993)

tracked 23 Pileated Woodpeckers in northeastern Oregon, and found stands with old growth, Grand Fir, no logging, and >60% canopy cover were used more than expected.

Clearly, rare native wildlife require an abundance of large >20 inch dbh trees to survive, and these protections must remain in place to enable these species to persist as required by law.

(2) Large Trees Store Carbon Whereas Logging Releases Carbon

Large trees also store vast amounts of carbon, together with forest soils, so that timber harvesting which removes large trees and disturbs forests soils is one of the greatest sources of human-caused release of greenhouse gas emissions into the atmosphere.

A recent report from 1 June 2020, The Status of Science on Forest Carbon Management to Mitigate Climate Change, authored by 7 preeminent scientists, stated "Increased harvesting of forests for wood products and burning wood for bioenergy adds more carbon dioxide to the atmosphere than growing secondary forests and protecting older forests." They further noted that it takes 100 to 350+ years to restore carbon in forests that had been degraded by timber harvest (Law et al. 2018, Hudiburg et al. 2009). Additionally, research has found that one-half of harvested carbon is emitted to the atmosphere almost immediately after logging, and 65% of the forest carbon removed by timber harvest in Oregon's forests in the past 115 years has been returned to the atmosphere, while only 19% is stored in products and 16% in landfills (Hudiburg et al. 2019).

Larger trees (which store more carbon), must be protected from timber harvest to mitigate climate chage, providing another extremely compelling reason not to remove the 21 inch Wildlife Screens.

(3) Logging Trees Harms Forest Resilience and Tree Evolution

Finally, harvesting timber to reduce fire severity or insect attacks or mortality from drought is counter-productive because this could be eliminating the very trees that are most genetically resistant to disturbances associated with a warmer, drier climate. As an example, a study conducted in Montana found that survivorship of individual trees during mountain pine beetle outbreaks is genetically based and therefore heritable (Six et al. 2018). The authors stated "the insect outbreak acts as a natural selection event, removing trees most susceptible to the bark beetle and least adapted to warmer, drier conditions." Logging trees is likely tampering with the evolutionary trajectory of forests and their capacity to adapt to changing conditions. When the Forest Service conducts timber harvesting in forests, there are genetic consequences that are not considered in the environmental analyses, which could be devastating for forest resilience in a warming world.

Conclusion

There remains a deficit of large trees on the landscape in eastern Oregon. The 21 inch Wildlife Screens have only been in place for 25 years, and so trees across the landscape have not had sufficient time to ameliorate this deficit. I strongly oppose the removal of the wildlife screens.

Thank you for the opportunity to comment.

Sincerely,
Monica L. Bond, PhD
Principal Scientist
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